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ABSTRACT

Attitudes and perceptions of elementary students about moderately mentally retarded children were measured in three elementary schools providing classroom programs for the moderately mentally retarded and three elementary schools not providing such programs. Additional variables investigated were size of school system/community (small, medium, and large) and grade level (first, third, and fifth). Following random assignments to experimental or control status, all experimental Ss were provided two 1-hour intervention sessions designed to increase student acceptance and awareness of mentally handicapped individuals. Intervention materials were selected from the Better Understanding of Disabled Youth program. Five weeks after the pretest, all Ss were again measured with the same instrument. Initial differences were discovered for each variable under consideration. Change scores between pretest and posttest measure indicated significant differences among comparisons of all experimental variables. Control groups remained stable on all variables from pretest to posttest. Multimedia presentations in the areas of handicap awareness and group interaction were effective ways of increasing students' acceptance of mentally handicapped children in a systematic manner. (Author/CL)

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Elementary Students' Perceptions of the Moderately Mentally Retarded

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Running Head: STUDENTS' PERCEPTIONS

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Abstract

The attitudes and perceptions of elementary students about moderately mentally retarded children were measured in three elementary schools providing classroom programs for the moderately mentally retarded and three elementary schools not providing such programs. Additional variables investigated were size of school system/community (small, medium, and large) and grade level (first, third, and fifth). Following random assignments to experimental or control status, all experimental subjects were provided two one-hour intervention sessions designed to increase student acceptance and awareness of mentally handicapped individuals. Intervention materials were selected from the Better Understanding of Disabled Youth program. Five weeks after the pretest, all subjects were again measured with the same instrument. Initial differences were discovered for each variable under consideration. Change scores between pretest and posttest measures indicated significant differences among comparisons of all experimental variables. Control groups remained stable on all variables from pretest to posttest. The implications of each finding are identified and discussed.

Elementary Students' Perceptions of the

Moderately Mentally Retarded

Investigators have formulated the possiblity of a "contact hypothesis" as a variable influencing the attitudes held by students toward their mentally retarded peers (Strauch, 1970). The basis for the contact hypothesis is the belief that majority students who encountered opportunities for interaction and close proximity to their mentally retarded peers would have different attitudes toward mentally retarded children than students who did not have such opportunities. Brown, Branston, Hamre-Nietupski, Johnson, Wilcox, & Gruenwald (1979), Cavallaro & Porter (1980); Johnson, Johnson, DeWeerdt, Lyons & Zaidman (1983); and Voeltz (1980, 1982) have all commented on the beneficial aspects of direct applications of the contact hypothesis. All have suggested that increased opportunities for contact between severely mentally retarded and typical students resulted in more favorable attitudes toward the mentally retarded students.

Conversely, Gottlieb, Cohen, & Goldstein (1973) and Fundis (1981) found that peer attitudes toward mildly mentally retarded children in a school setting were most favorable when the regular school children had little contact with mildly mentally retarded subjects. In an extensive review of the efficacy of mainstreaming, Gresham (1982) stated that the concept of including handicapped students with nonhandicapped students is based in part on three faulty assumptions including:

1. contact between handicapped and nonhandicapped increases social interaction;

2. the same contact increases social acceptance of handicapped children by nonhandicapped peers; and

3. handicapped children model the behaviors of nonhandicapped peers because of increased exposure to them.

Strain and Shores (1983) also questioned these statements, but interpreted the problem as a lack of instructional attention to social skills rather than the failure of integration efforts.

Although insufficient attention has been paid to the perceptions and attitudes of normal individuals toward the moderately mentally retarded (according to levels established by the AAMD classification system Grossman, 1983), such information is crucial to help achieve an appropriate education for this population. Maloney and Ward (1979) pointed out that all program, training, and treatment provisions for mentally retarded individuals were affected by public attitudes. Most importantly, these attitudes have had a direct impact on how mentally retarded persons were treated interpersonally and socially. However, the vocational and residential expectancies for the moderately mentally retarded are, in many cases, significantly different from those established for mildly or severely mentally retarded individuals. Therefore, studies conducted exclusively with the moderately mentally retarded may yield different information than previous investigations conducted with severely and mildly retarded subjects.

The purpose of this investigation was to determine whether majority elementary school students at different grade levels (first, third, and fifth) and in varying size classifications of school systems and communities (small, medium, and large) possessed similar attitudes and perceptions about moderately mentally retarded children. The study was conducted in elementary schools providing a classroom program for the moderately mentally retarded, and in elementary schools not attended by moderately mentally retarded students, to determine whether differences existed between the different types of schools (with moderately mentally retarded vs. without moderately mentally retarded). An additional problem explored by the investigation was whether a planned program of intervention, consisting of factual information and learning activities presented about the moderately mentally retarded would

have an impact on the attitudes and perceptions which the various groups possessed about the handicapped students. Studies which have recently been conducted indicate that positive modification of attitudes towards the handicapped can be systematically accomplished (Fenrick & Petersen, 1984; Stainback, Stainback, Hatcher, Strathe & Healy, 1984). However, the variables or combinations of variables which respond or do not respond to intervention have not been addressed.

These findings were thought to be beneficial in determining whether children's attitudes and perceptions in this area can be modified. The data resulting from the study were used to determine whether placement of moderately mentally retarded children into regular elementary schools to achieve the least restrictive environment had been perceived negatively or positively by majority elementary students. Furthermore, the effectiveness of the intervention was compared on different variables to determine whether such efforts are beneficial for students in different settings, levels, and situations.

Method

Subjects

Responses from students in three different school districts provided information for the study. The three districts were purposely selected as representative of small (1,728 students), medium (10,277 students) and large (27,328 students) school districts. These size classifications were made on the basis of student enrollment (0-5000 students= small; 5001-25000= medium; over 25000= large) and size of the community (rural = small, small urban = medium, and metropolitan = large). The purpose of selecting three different size districts was to determine whether an optimal school and community size for favorable attitudes toward the target group could be

identified. All districts selected had been operating elementary schools which included self-contained classrooms for moderately mentally retarded students (for the past 2-3 years) as well as elementary school buildings without moderately mentally retarded students in attendance. A total of 18 experimental and 18 control classrooms were randomly selected for participation in the study from six different schools housing a total of 112 different classrooms. Classrooms selected for experimental and control status were determined by random selection. All subjects were primarily middle class children from white, anglo-saxon racial and ethnic backgrounds. The largest minorities identified in the student samples were hispanic (6.5%) and black (1.1%). A total of 462 experimental and 481 control subjects were initally selected to provide information to the study.

Instrument

The Student Attitude and Perspective Scale (Rude, 1982) was administered as a pretest to all elementary subjects on a group basis. Reliability data have been established at between .78 to .92 for individual items employing a test-retest Pearson Product-Moment procedure. The Scale's validity was favorably endorsed by a review of pilot study information before a panel of experts. In addition to university professors who were conversant with the topic, classroom teachers of the children completing the instrument were included on the panel. The panel compared the scores of individual children to their actual attitude toward and treatment of handicapped children (as rated by teachers). High scores on the scale were positively correlated to positive interactions with handicapped students by the children participating in the pilot-study. All items were read to each classroom group by investigators (see Appendix for material on the instrument).

Procedure

Two weeks following the collection of pretest responses, two one-hour programs on the topic of mental retardation were presented within a period of one week to each experimental group classroom by the investigators. The format for each program consisted of three group activities. Each program was conducted as a group presentation for grades one, three, and five in their respective classrooms. Activities were selected from the Better Understanding of Disabled Youth multi-media program (Weishahn & Baker). Adequate time was allocated within each presentation for answering student questions regarding the material presented. Activities numbers 2, 4, 9 and 14 from the Physically Impaired BUDY Kit were the basis for intervention one; while activities numbers 3, 8, and 13 from the Learning Handicapped BUDY Kit were presented for intervention two. The same intervention was standardized across all classrooms and administered by the same individual to control for procedural reliability.

The Student Attitude and Perspective Scale was administered to all experimental classrooms two weeks after the second program of planned intervention. An identical scale was administered to all control classrooms five weeks after the pretest phase and was employed in the collection of posttest data. Subjects were provided the same information and procedures used in the administration of the pretest.

Each response in the Student Attitude and Perspective Scale carried a weighted value which reflected elementary students' degree of favorable attitudes toward moderately mentally retarded children.
Among three possible responses to each question, the most favorable response toward the moderately mentally retarded was assigned the highest value, the negative response was assigned the lowest value, and the neutral response

was assigned an intermediate numerical value. Students' scores were analyzed only for those students present for all interventions. A total of 346 experimental and 370 control students were analyzed from the original 943 subjects in the 36 classrooms.

A four way analysis of variance (Winer, 1971) was conducted on pretest data collected from all elementary schools involved in the investigation. This permitted comparative investigations of the independent variables of size of school and community system, grade levels, and schools with moderately mentally retarded students in attendance vs. schools without moderately mentally retarded students in attendance on the dependent variable of perceptions and attitudes of regular elementary students about moderately mentally retarded children. Following the four-way analysis, the Newman-Keuls multiple comparison method was used to identify significant differences among the variables.

A four-way analysis of variance was also conducted on change scores collected from all elementary schools participating. The Newman-Keuls approach was again employed to examine critical differences related to the degree of change on the independent variables. The .05 level of significance was set prior to the study for these analyses. A final analysis of covariance was also conducted using pretest scores as the covariate.

Results

Initial assessment of elementary school students' attitudes and perceptions about the moderately mentally retarded indicated significant differences in scores for: grade level (fifth ($\bar{x}$ =77.9) and third ($\bar{x}$ = 76.8) were higher thar first ($\bar{x}$ - 71.6); size of school system and community (medium $\bar{x}$ = 80.4) was higher than small ($\bar{x}$ - 73.4) or large ($\bar{x}$ - 73.0)); and mainstream type of school (schools with moderately mentally retarded) ($\bar{x}$ - 78.0) were higher than schools without moderately mentally retarded ($\bar{x}$-73.8). An interaction

for grade x type x group indicated that schools without moderately mentally retarded students in attendance showed greater variability on pretest scores. An interaction for type x group supported this finding. (See Table 1.)

Insert Table 1 about here

All experimental groups showed significantly higher gains than controls on attitudes and perceptions toward the moderately mentally retarded following a program of planned intervention. (See Table 2.) These differences were greatest at the first grade level, with relatively equal gains made by third and fifth grade experimental groups. Small community experimental groups made the largest gains ($\bar{x}$ = 7.4 gain) followed by large communities ($\bar{x}$ = 5.8 gain). Both were significantly higher than the medium size communities ($\bar{x}$ = 2.8 gain). Finally, schools without moderately mentally retarded children made higher gains ($\bar{x}$ = 7.0 gain) than schools with moderately mentally retarded children ($\bar{x}$ = 3.7 gain) which may suggest that in the absence of contact with a target group, intervention may increase the awareness and favorable attitudes toward mentally handicapped students.

Insert Table 2 about here

An analysis of interactions for grade x group, size x group, type x group, and grade x size x group supported the notion that control groups remained essentially the same from pretest and posttest. (See Table 3.) First graders from small communities ($\bar{x}$ = 11.7 gain) made the largest gains, followed by first graders from large communities ($\bar{x}$ = 7.9 gain).

Insert Table 3 about here

Discussion

The fact that first grade students consistently scored lower on the attitude measure initially, yet showed the greatest amount of change after intervention, indicated that younger children may not have well developed attitudes or beliefs related to moderately mentally retarded children. Such attitudes are positively developed through the planned intervention. Third ($\bar{x}$ = 4.3 gain) and fifth ($\bar{x}$ = 4.0 gain) grade students, while being roughly equivalent upon initial measurement, made less pronounced gain than did first grade groups ($\bar{x}$ = 7.9 gain) after intervention. Greater dispersion was noted among fifth grade children, while third graders' scores appeared more clustered, suggesting that upper elementary level students may display more diverse and independent attitudes toward the target group. In general, efforts to modify children's attitudes in the manner described were found to be more productive at earlier age levels.

Support for the contact hypothesis was discovered upon initial measurement. Students from schools with moderately mentally retarded students in attendance scored higher than schools without moderately mentally retarded students attending. After experimental intervention, where schools without moderately mentally retarded students in attendance (means gains were 7.0 and 3.7 points respectively), both school types were approximately equivalent as determined by class means for each group.

Since no systematic investigation related to community size had previously been identified in the review of literature, it was significant to find higher attitude scores toward the moderately mentally retarded in medium size school districts. Small and large size school districts scored much the same on the initial measurement. Following intervention, schools from small districts

($\bar{x}$ = 7.4 gain) made significantly higher gains than schools in medium ($\bar{x}$ = 2.8 gain) and large size ($\bar{x}$ = 4.8 gain) school districts, which might be partially explained by less frequent opportunities for exposure to handicapped individuals in smaller communities.

The amount of increase among first grade experimental groups apparently supports the case for early intervention in attitude development or modification. It would appear to be prudent to target younger children for systematic training of this nature, particularly when student acceptance and participation is essential to the success of activities, such as mainstreaming the handicapped in a beneficial manner. If a class of moderately mentally retarded students were to be placed in an elementary school building for the first time, these results indicated that systematic intervention would be advisable, particulary at the early grade levels.

Intervention was determined to be statistically effective at all schools with the exception of the medium size schools. Since the medium size communities scored higher initially than either small or large size communities, the consistent pattern of scores from pretest to posttest for this group indicated that initial assessment of attitudes was important. If students attitudes are determined to be sufficiently positive, decisions to embark upon intervention programs may be a lower priority and consequently unnecessary.

Recommendations

The results of this study were the basis for the following recommendations:

1. Multi-media presentations in the areas of handicapped awareness and group interaction were demonstrated to be effective vehicles for increasing students' acceptance of mentally handicapped children in a systematic manner.

2. Since all groups provided with experimental interventions remained consistent or showed attitude change in a positive direction, such activities were beneficial for the majority of elementary students.

3. The provision of early intervention to positively modify student attitudes toward the moderately mentally retarded was strongly recommended at actual or potential sites for mainstreaming the moderately mentally retarded.

4. Initial assessment of student attitudes was recommended prior to undertaking a planned program of attitude change to determine whether such a program is time efficient and necessary.

5. An investigation of other variables which may have been associated with elementary students' attitudes and perceptions concerning the moderately mentally retarded was recommended including: race, IQ, degree of isolation, home and family background, the students' teachers, and the amount of previous information received on the topic.

Figure Caption

Table 1. Pretest Scores

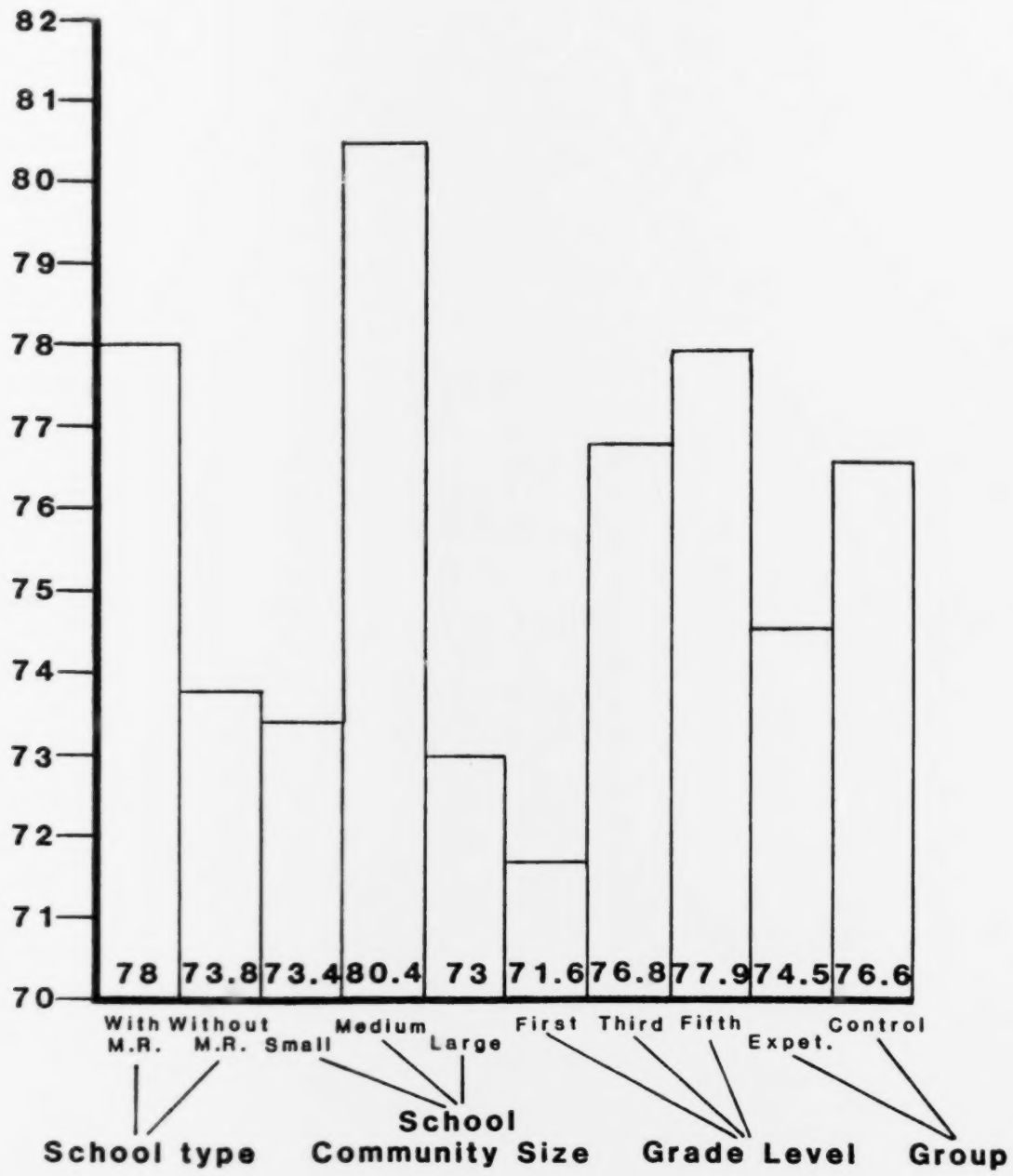

Table I
Pretest Scores

Figure Caption

Table 2. Change Scores - Experimental Group

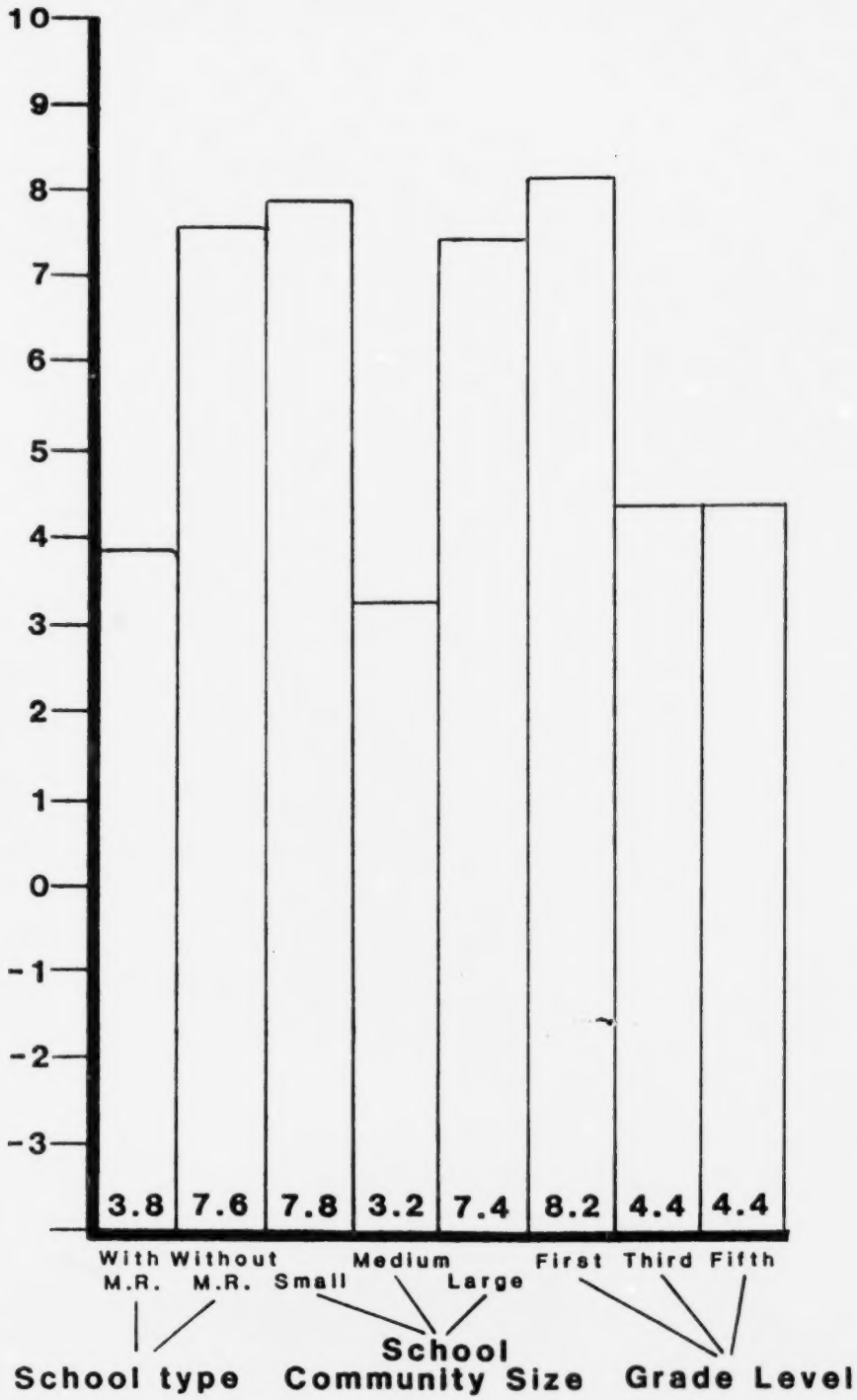

Table II
Change Scores - Experimental Group
(Post test — pretest score)

Figure Caption

Figure 3. Change Scores - Control Group

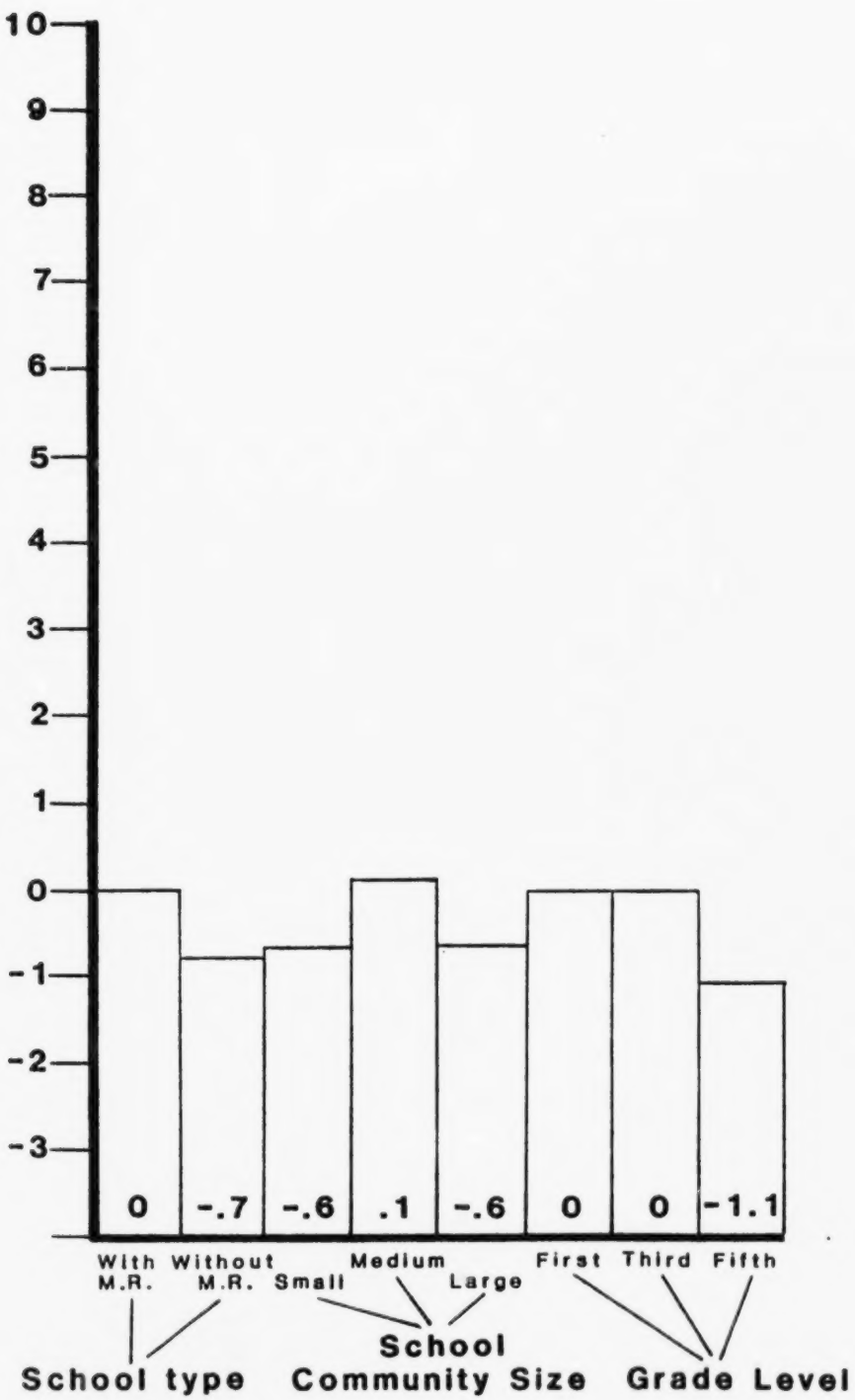

Table III
Change Scores - Control Group
(Post test minus pretest score)

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APPENDIX

INFORMATION ON STUDENT ATTITUDE AND PERSPECTIVE SCALE

A forced choice instrument consisting of twenty two items was administered as both pretest and posttest. Sample items include the following:

CIRCLE YOUR BEST ANSWER TO EACH SENTENCE:

1. When I see kids who are mentally retarded, I say hello to them. ♥ YES ☾ Don't Know ★ NO

2. I would like to go to summer camp the same week that mentally retarded kids are there. ♥ YES ☾ Don't Know ★ NO

3. Children who are mentally retarded should be in my school. ♥ YES ☾ Don't Know ★ NO

4. Mentally retarded kids scare me when I am around them. ♥ YES ☾ Don't Know ★ NO

All items were read to each classroom which completed the instrument in a group setting. To establish a referrent for the term mentally retarded kids, the following statement was read:

I AM GOING TO ASK YOU SOME QUESTIONS ABOUT MENTALLY RETARDED CHILDREN. MENTALLY RETARDED KIDS YOUR AGE ARE NOT ABLE TO DO THE SAME KIND OF SCHOOL WORK AS YOU, BECAUSE IT IS MUCH TOO HARD FOR THEM. THEY GO TO SCHOOL IN SPECIAL CLASSES FOR RETARDED CHILDREN. THESE CLASSES ARE SOMETIMES HELD IN REGULAR SCHOOLS AND OTHER TIMES IN SPECIAL SCHOOLS. THESE ARE NOT THE SAME KIND OF CLASSES AS THE SPPECH, SPECIAL READING, AND RESOURCE ROOM CLASSES THAT SOME OF YOU MAY ATTEND FOR EXTRA HELP. THERE (IS/IS NOT) A CLASS FOR MENTALLY RETARDED KIDS IN YOUR SCHOOL. (Explain the location and teacher if such a class exists in the school.) THERE ARE NO RIGHT OR WRONG ANSWERS TO THESE QUESTIONS. BE AS HONEST AS YOU POSSIBLY CAN, AND PUT DOWN

YOUR OWN BEST ANSWER FOR EACH QUESTION.

To assist non-readers and younger children in completing the scale, the symbols (heart, moon, and star) were mentioned along with each possible response following the questions.